



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/753,669

01/08/2004

Donald C. Roe

7537CQ

1141

27752 7590 05/07/2007
THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION - WEST BLDG.
WINTON HILL BUSINESS CENTER - BOX 412
6250 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER

STEPHENS, JACQUELINE F

ART UNIT

PAPER NUMBER

3761

MAIL DATE

DELIVERY MODE

05/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

H

| | | | |
|------------------------------|---|-----------------------------------|--|
| Office Action Summary | Application No. 10/753,669 | Applicant(s) ROE ET AL. | |
| | Examiner Jacqueline F. Stephens | Art Unit 3761 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/9/07 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-52 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 3761

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-11 and 15-52, as best understood by the examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Everhart et al. USPN 5468236 in view of Al-Sabah USPN 5868723 and further in view of Eppstein et al. USPN 5458140.

As to claims 1-10 and 40-47 Everhart teaches a disposable absorbent article comprising a sensor for detecting analytes in bodily waste or on a user's skin. Everhart discloses a disposable article comprising a topsheet **14**, a backsheet **12**, and an absorbent core **16** as claimed ('236 Figure 2). Everhart disclose the target analyte may include a health or nutritional marker ('236 col. 3, lines 10-29) , which may be an enzyme, endogenous secretion, proteinaceous matter, or microorganism (col. 3, lines 56-65).

Everhart does not specifically disclose a sensor capable of detecting a low level of analyte. Applicant point out the present application discloses chemical sensors generally do not have either the high selectivity or the amplification properties of biosensors, and therefore, are not well suited to detect biologically reactive analytes,

especially when they are present in low concentrations and/or in complex media such as bodily wastes. However, Everhart teaches a chemically reactive substance acting upon mammalian bodily excrement that provides the types of substance present and an estimate of the concentration of the substance (Everhart col. 3, lines 21-29). Everhart additionally teaches the minimum amount is simply that amount which is necessary to activate the chemically reactive means and this minimum amount is in part dependent upon the concentration in the mammalian bodily excrement of the specific substance of interest. Everhart further teaches this minimum threshold level is readily determined by one of ordinary skill in the art with routine experimentation (Everhart col. 4, lines 3-19). Based on the teaching of Everhart, it would have been obvious to one having ordinary skill in the art to provide a chemical sensor capable of detecting low levels of analytes by optimizing the threshold level of the chemically reactive means. Moreover, discovering optimum values only involves routine skill in the art, *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Everhart disclose the present invention substantially as claimed. However, Everhart fail to disclose the disposable article has an actuator. Al-Sabah discloses an absorbent article comprising an actuator **43**, which comprises a power source **42**(Figure 7). The actuator performs a responsive function when the sensor detects an input (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate an actuator as taught in Al-Sabah to the sensor apparatus of Everhart. Doing so would provide a means for alerting the user or a health care professional of the presence of the target analyte.

Everhart/Al-Sabah does not disclose a transducer capable of detecting a target analyte. Eppstein et al. USPN 5458140 discloses a transducer to selectively direct analyte withdrawal to collection reservoir or absorbent patch (Eppstein col. 5, lines 21-25). It would have been obvious to one having ordinary skill in the art to provide the sensor of Everhart/Al-Sabah with a transducer for the collection and monitoring of analytes from the body as taught in Eppstein.

Regarding claim 11, 15-20, 26-35, the invention of Everhart/Al-Sabah/Eppstein provides a visual indication of a substance upon reacting with body excrement. Body excrement, particularly perspiration, may not necessarily provide clinically observable symptoms, such as a skin rash. In this manner, the invention of Everhart would provide information to the wearer prior to clinically visible symptoms. The sensor provides a signal to the wearer, caregiver, or an actuator ('236 Abstract) as broadly as claimed.

Regarding claims 21 and 23, the sensor is affixed to a substrate ('236, col. 6, lines 4-6).

Regarding claims 22 and 24, the sensor is detachable from the article ('236 col. 6, lines 26-32).

Regarding claims 25 and 48, the sensor may adhere to a wearer's skin ('236, Abstract).

Regarding claims 36-39 and 49-52, Everhart describes a biosensor for detecting a target analyte upon excretion of bodily fluids or waste materials. Everhart provides a

Art Unit: 3761

response within a period of time that stays valid until the article is discarded. The response factor would have been obvious by optimizing the type of biosensor materials since the invention of Everhart is used in the same environment and problem that is solved is the same as the claimed invention. Moreover, discovering optimum values only involves routine skill in the art, *In re Boesch*, 617 F. 2d 272, 205 FUSPQ 215 (CCPA 1980).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline F. Stephens whose telephone number is (571) 272-4937. The examiner can normally be reached on Monday-Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3761

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jacqueline F Stephens
Primary Examiner
Art Unit 3761

April 16, 2006